

Communications and Networks

What is the Internet?

A Wide Area Network (WAN) spanning the whole globe.

What is the WWW?

The World Wide Web is a collection of information in multimedia form on the Internet.

(Multimedia involves combination of media types including text, graphics, animation, audio and video).

What is a browser?

A program allowing users to view and interact with resources on the WWW.

E.g. Internet Explorer, Safari, Firefox, Camino

What is HTML?

HyperText Mark-up Language is the special language used to write web pages.

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How are web pages created?

- A simple text editor can be used to simply type the code such as that shown below.
- A web page editor such as Dreamweaver can be used, where the package writes the HTML code for you in the background while you add text, pictures, sounds etc.
- A browser can be used to write pages.
- A General Purpose Package (GPP) such as Word can have pages saved in a web page format.

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What is a hyperlink?

A link to another web page or another file stored on the WWW or on a local hard disc.

How do links work?

By clicking on a piece of text (often underlined) or a graphic.

What is a wizard?

A feature that takes you step by step through the process of creating a particular document (such as defining a web site).

What is a template?

This is a readymade blank web page, with placeholders for items like text and graphics.

Each page made from the template will have the same look and feel, although the actual content will be different.

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What disadvantages are there to embedding video or sounds in a web page?

These files can be very large in size.

They can take a very long time to load, especially if the user does not have a high speed broadband internet connection.

What disadvantage can arise from playing a video file via a link to another site?

If the link is changed or the page removed, then the video will no longer play.

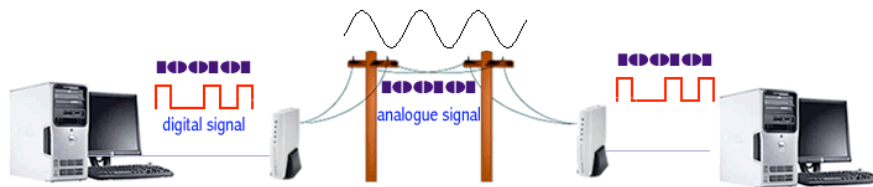
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What is an internet ready computer?

One with an internal modem, and communications software such as a browser and an email client program.

What is a modem?

- A modem allows communication between 2 digital devices across analogue communication lines.
- A modem at one end converts a computer's digital, binary signal (made of 0's and 1's) into an analogue signal that can be carried on the phone wires.
- Another modem at the other end converts the analogue signal back to a digital signal the computer can read.



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What is an ISP?

- An Internet Service Provider.
- A company that provides a host computer that manages communications and stores data such as email and web pages for its clients.
- E.g. AOL, BT, NTL, Plusnet

What is Video Conferencing?

Using a webcam, a computer system and a network connection to link participants at different locations using real-time audio and video.

What are the advantages of video conferencing?

- Time is not spent traveling to meetings - video conferencing can be done with people on other sides of the world.
- Money can be saved on things such as air fares and hotel bookings.

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What is a dial-up connection?

- Where computer's modem dials the telephone number of an ISP, thus allowing access to the internet.
- Each time the user wants to use the internet, they will have to go through the dial-up process, just like an ordinary telephone call.
- Dial-up connections are slow, running at 56 kilobits/sec.

What is a broadband connection?

- A broadband connection is an "always on" connection to the internet.
- Broadband is much faster than dial-up.
- Broadband allows user to make calls and access the internet at the same time, unlike a dial-up connection.

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What is a search engine?

- A program that searches for information and returns sites providing that information.
- E.g. Google, Altavista, Ask Jeeves

How does a simple search work?

- One or more keywords are entered in the search box.
- The search engine then searches millions of web pages to find the keywords.
- Successful hits are returned to the user to browse or ignore.

How does a complex search work?

- This can involve a search with more than one search term and allows restrictions to refine the search.
- Most search engines will allow the **and** operator (+) to specifically **include** a particular term.
- Similarly, the (-) operator can be used (do **not include**).

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What is downloading software?

Saving a file from a network onto a particular computer system.

What types of software licences may be involved in downloads?

Freeware - software that is completely free and can be used on any number of computers without paying a fee.

Shareware - software that can be used for a trial period and then a fee should be paid or the software should be removed from machine(s).

Commercial - Must be paid for and license procedures should be strictly adhered to.

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What are Mobile Internet Technologies?

Devices such as laptops, palmtops (PDA) and mobile phones that can connect to the Internet independent of mains electricity or a physical Internet connection (such as to a phone line).

What is an NIC?

A Network Interface Card.

A piece of hardware in a laptop or similar computer that is required to allow the computer to connect to a network such as the Internet.